



TANK ROOF FRAMING PLAN - AREA C

SCALE: 1/8" = 1'-0"



EXISTING ROOF  
MEMBRANE  
OVER EXIST.  
INSULATION

EXISTING CONC.  
TOPPING

EXISTING  
PRECAST

TANK COATING

VALVE STEM  
(TYP. 4)  
JOINT FILLER AND  
PRIMER

INFLATABLE  
PLUG /  
BLADDER

BOND BREAK  
GAP IRREGULAR  
1" TO 3"  
LENGTH =  
40'-0"

NOTES:

- REMOVE ROOFING AND INSULATION AT EXPANSION JOINT.
- INSERT CUSTOM INFLATABLE PLUG OR BLADDER. PLUG OR BLADDER MUST BE SUITABLE FOR USE IN AN ANAEROBIC DIGESTER ENVIRONMENT WITH AN OPERATING TEMPERATURE OF 90 TO 110 DEG. F. COMMON CONSTITUENTS IN BIOGAS:
  - METHANE - 50% TO 75%
  - CARBON DIOXIDE - 25% TO 50%
  - HYDROGEN SULFIDE - UP TO 10,000 PPMV
- BIOGAS PRESSURE UNDER PRECAST COVER CAN REACH 24 INCHES W.C.
- PROVIDE BULKHEAD EVERY 10-FT TO SPLIT PLUG OR BLADDER INTO 4 SECTIONS.
- PROVIDE CLOSED-CELL EXTRUDED POLYPROPYLENE BOND BREAKER BETWEEN BLADDER AND JOINT FILLER.
- POLYUREA JOINT FILLER:
  - CLEAN CONCRETE SURFACES OF CONTAMINANTS AND MOISTURE.
  - PRIME CONCRETE SURFACES WITH OAK RIDGE OR611 PRIMER.
  - FILL JOINT WITH OAK RIDGE OR80UF TWO-COMPONENT POLYUREA JOINT FILLER.
  - COMPLY WITH MANUFACTURER'S RECOMMENDATIONS

ROOF EXPANSION JOINT REPAIR PROCEDURE

5 NOVEMBER 2018 - MOBILIZE TO SITE, CONDUCT JHA, AND SET-UP/TEST SUPPLIED AIR EQUIPMENT (BY BOE) AND PPE.

6 NOVEMBER 2018 - CONDUCT DAILY SAFETY BRIEFING AND TASK PLANNING. DRAW DOWN DIGESTER #2 PRESSURE TO 1" W.C. LOCATE EXPANSION JOINT AND REMOVE EXISTING ROOF MEMBRANE AND INSULATION AS REQUIRED WITH NON-SPARKING TOOLS. EXCAVATE AND CLEAN JOINT WITH 20,000 PSI PRESSURE WASHER. JOINT FILLER'S MANUFACTURER REPRESENTATIVE TO REVIEW OPENING IS CLEAN ENOUGH FOR PRIMER. INSTALL INFLATABLE PLUG PER EXPANSION JOINT DETAIL INTO JOINT AND EXPAND SECTIONS WITH COMPRESSED AIR TO MANUFACTURER'S RECOMMENDED PRESSURE. CHECK FOR LEAKS WITH GAS DETECTION EQUIPMENT. SEAL LEAKS AS REQUIRED WITH OAKUM.

7 NOVEMBER 2018 - CONDUCT DAILY SAFETY BRIEFING AND TASK PLANNING. VERIFY PRESSURES IN INFLATABLE PLUGS. RE-CHECK FOR LEAKS WITH GAS DETECTION EQUIPMENT. SEAL LEAKS AS REQUIRED WITH OAKUM. ONCE SEALED, JOINT FILLER MANUFACTURER'S REPRESENTATIVE TO VERIFY SURFACES ARE SUITABLE FOR PRIMER. JOINT FILLER MANUFACTURER'S REPRESENTATIVE TO INSTALL PRIMER. AFTER PROPER CURING TIME, MANUFACTURER REPRESENTATIVE TO INTALL POLYUREA JOINT FILLER. SHAVE EXCESS MATERIAL FROM TOP OF SLAB WITH SHARP SCRAPER AFTER MATERIAL HAS SET FOR 30 MINUTES.

EXPANSION JOINT REPAIR DETAIL - ROOF

KEYPLAN - AREA C



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BIG OX ENERGY DAKOTA CITY NEBRASKA 68731  
TANK ROOF FRAMING PLAN - AREA C

DESIGNED PEB	DRAWN GVV
PROJECT NO. B1076-950158	
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